

# Introduction

## From CCU to CHF: bridging the treatment gap

**H**eat failure not only reduces life expectancy, but is associated with symptoms of breathlessness, fluid retention, and fatigue that notably impair quality of life. It is a clinical syndrome that may result from any structural or functional cardiac disorder that impairs the pumping ability of the heart.

Major changes in treatment have resulted from an improved understanding of the pathophysiology of heart failure and from the results of large clinical trials. Furthermore, with the publication of evidence based management guidelines, much needed attention has been focused on the care of the chronic phase of the syndrome. But we are still far from having “solved” heart failure. Patients with heart failure often require hospitalisation to re-establish control of the syndrome; heart failure admissions account for around 5% of emergency medical admissions in the UK, and chronic disease management continues to be a major challenge.

Around half of all new cases of heart failure in patients aged less than 75 years are caused by coronary artery disease and many of these patients develop heart failure in the context of acute myocardial infarction (MI). Ironically, therefore, improved management of acute coronary disease has contributed, along with the general ageing of the population, to the growing burden of heart failure, as patients increasingly survive the acute cardiac event but then live on with a significantly damaged heart.

“From CCU to CHF: bridging the treatment gap” was the title of a one day conference that brought together leaders in the field of MI and heart failure to discuss how health care professionals can work together to

develop an optimal care pathway to ensure that today’s heart attack survivors do not become tomorrow’s heart failure sufferers.

This supplement contains papers based on the presentations made at the meeting, as well as reports of the discussions that these presentations prompted.

The following pages demonstrate that the ventricular remodelling that underlies the development of heart failure generally occurs in the early period after MI. Increasing efforts to reduce the extent of cardiac damage at the time of infarction through rapid thrombolysis or primary coronary intervention should help reduce the subsequent burden of heart failure. But there is also now clear and substantial evidence from clinical trials that early intervention once heart failure has arisen can beneficially alter the clinical course and reduce the risk of subsequent cardiac morbidity and mortality.

However, consideration of existing practice indicates that if this evidence is to be implemented in clinical practice, it will require a radical rethink of current approaches to the MI care pathway. This means ensuring that echocardiography is performed on all patients in order to detect significant left ventricular damage in the early days after an MI. Once dysfunction is detected appropriate treatment must be initiated. The treatments for which substantial evidence of benefit is available include angiotensin converting enzyme inhibitors,  $\beta$  blockers, and aldosterone blockers.

Once treatment is initiated, ongoing monitoring is then required, together with efforts to up-titrate treatments to the dosages used in the clinical trials. This implies a need to develop an



integrated approach between hospital and community services. Fortunately, there are a number of care models available within the health service that offer a way forward in this respect.

So, from the management of the early post-MI period there is a direct link in with the treatment of chronic heart failure. While it is clearly for each local health economy to decide how best to divide tasks so that patients receive optimal treatment, it seems likely that echocardiography and initiation of treatment will be under the auspices of secondary care, while ongoing monitoring and follow up of patients will fall to those in primary care. This implies a growing role for community based heart failure nurse specialists and general practitioners with a specialist interest.

Achieving optimal care for patients with post-MI heart failure poses a major challenge to the National Health Service, and many barriers remain to be overcome. We hope the wealth of experience contained within the following pages will prove both interesting and thought provoking.

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